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09/055,712	04/07/1998	HYOUNG-JOO LEE	1317.1028/MD	4304

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

BUI, KIEU OANH T

ART UNIT	PAPER NUMBER
2611	22

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/055,712

Applicant(s)

LEE, HYOUNG-JOO

Examiner

KIEU-OANH T BUI

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 29 April 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1,3-17,20-31 and 33-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-17,20-31 and 33-35 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

- 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Allowable Subject Matter*

1. The indicated allowability of claims 1, 3-17, 20-30, and 33 of the previous Office Action (paper no. 19) is withdrawn in view of the newly discovered reference(s) to Ellis et al (U.S. Patent 5,986,650/ or "Ellis" hereinafter). Rejections based on the newly cited reference(s) follow.

### *Response to Arguments*

2. Applicant's arguments with respect to claims 1, 3-17, 20-31, and 33-35 have been considered but are moot in view of the new ground(s) of rejection.

### *Remarks*

3. Claims 2, 19, and 32 were previously canceled without prejudice in the amendment B (Paper No. 8) as the result of the Request for Continued Prosecution Application dated 7/27/01 (Paper No. 10) and claim 18 was canceled without prejudice in the amendment C (Paper No. 13) which has been recently filed and entered. Claim 36 was added (Paper no. 21). Pending claims now are 1, 3-17, 20-31, and 33-36.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --*

*(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.*

5. Claims 31, and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellis et al (US Patent No. 5,986,650).

Regarding claim 31, Ellis discloses "a method of displaying a program progress time of a currently viewed program comprising: issuing a user-initiated display command; and displaying a program terminating time of the currently viewed program at a preset time set by the user prior to a program terminating time of the currently viewed program", i.e., the display time information such as the running time including the termination time are displayed on demand for the user and the time left on the program prior to a program terminating time shown of the currently viewed program (as in Figs. 11A-11C and with a remote controller as illustrated in Figs. 3 & 4). Ellis further discloses that a predetermined set time, a reminder is popped up and showing that a next program is about to start (Ellis, Figs. 9A & 9B, and col. 13/line 60 to col. 14/line 26); and furthermore, Ellis discloses a display for a current viewing program with its present (actual) time including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel (Figs. 11A-11C for illustration for channels 21, 22 & 23) and future program times including its program start time and program terminate time as well as other program/ channel information with its display screen for the current viewing channel (as illustrated in Figs. 12B-12C & Figs. 13A-13C, and col. 15/line 54 to col. 16/line 25).

(Claim 32 was canceled).

Regarding claims 33-35, Ellis discloses a method of outputting and displaying a program progress time on a signal receiver, which receives and processes program guide information containing a program schedule, comprising the steps of: receiving program guide information including a program schedule having the currently viewed program (Fig. 1, and col. 2/line 63 to col. 3/line 22); and displaying the program progress time of the currently viewed program simultaneously with the currently viewed program in response to a command from a user to

perform a function other than displaying the program progress time upon receipt of the command (col. 3/lines 23-44 for the user's control and commands addressed), the program progress time including a current time (as illustrated in Fig. 12A at a current time of 4:37PM for channel 21, program information for that channel is displayed);

storing the program guide information, i.e., to a memory (col. 5/lines 17-38 for program schedule information can be stored at ROM 17 of Fig. 1);

displaying and outputting the time information about the currently viewed program together with the currently viewed program automatically when the user issues the display command set (as illustrated in Figs. 11A-11C & Figs. 12A & 13A);

displaying the time information and next program information automatically when the current time reaches a preset time, i.e., a technique of reserving a preset time or a time interval whenever the user watches an existing program reaching the preset time, e.g., a five minutes ahead of a program or in other words, about five minutes left for the remaining viewing program of the current time would be reached, for displaying the next program information is disclosed by Ellis as Ellis shows that a predetermined set time, a reminder is popped up and showing that a next program is about to start (Ellis, Figs. 9A & 9B, and col. 13/line 60 to col. 14/line 26) and furthermore, Ellis discloses a display for a current viewing program with its present (actual) time including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel and the current time (Figs. 11A-11C for illustration for channels 21, 22 & 23) and future program times including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel (as illustrated in Figs. 12B-12C & Figs. 13A-13C).

As for claim 36, Ellis discloses a method comprising displaying a current program (as shown in Figs. 11A-11C, 12A & 13A); and automatically displaying information about a next program when a remaining time of the current program reaches a preset time, i.e., Ellis shows that a predetermined set time, a reminder is popped up and showing that a next program is about to start (Ellis, Figs. 9A & 9B, and col. 13/line 60 to col. 14/line 26) and furthermore, Ellis discloses a display for a current viewing program with its present (actual) time including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel and the current time (Figs. 11A-11C for illustration for channels 21, 22 & 23) and future program times is displaying including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel (as illustrated in Figs. 12B-12C & Figs. 13A-13C).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

7. Claims 1, 3-7, 10-17, 20-24, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (U.S. Patent No. 5,727,060) in view of Ellis et al. (U.S. Patent No. 5,986,650).

Regarding claim 1, Young discloses a method of displaying a program progress time on a signal receiver, i.e., on a graphical interface screen (Fig. 10/item 72) which receives and processes program guide information containing a program schedule (col. 1/lines 20-30), comprising the steps of:

- (a) storing the program guide information, i.e., to a schedule memory (Fig. 22A/item 232);
- (b) setting a command of the signal receiver which is commonly usable by a user as a display command to display time information about a currently viewed program, i.e., a program with the display time information, i.e., the display time information such as the running time or the elapsed time are displayed on demand for the user (as in Figs. 6 & 10 and col. 8/lines 45-65); and
- (c ) displaying the time information about the currently viewed program together with the currently viewed program when the user issues the display command set in said step (b), i.e, user uses a Select command for displaying the information (Fig. 10, and col. 8/line 66-col. 9/line 10), the time information comprising a beginning time with respect to the currently viewed program, i.e., as illustrated in Fig. 12 when a currently viewed program displaying on screen 74 with its information as "Judge 30 Min" as the beginning time related to that program; as well as "receiving program guide information containing a program schedule" as cited in claim 34 (Young, Figs. 6-7) and "the time information including a beginning time, a current time, and a terminating time of the currently viewed program" (Fig. 10/items 72 for running time including Start time or the beginning time and Finish time or terminating time and "11:00 a" on panel 62 for a current time). Young does not show the step of "d) displaying next program information when a remaining program time reaches a preset time" as claimed; however, the technique of reserving a preset time or a time interval whenever the user watches an existing program reaching the preset time, e.g., a five minutes ahead of a program or in other words, about five minutes left for the remaining viewing program, for displaying the next program information is taught by Ellis as Ellis shows that a predetermined set time, a reminder is popped up and

showing that a next program is about to start (Ellis, Figs. 9A & 9B, and col. 13/line 60 to col. 14/line 26), and furthermore, Ellis discloses a display for a current viewing program with its present (actual) time including its program start time and program terminate time as well as other program/channel information with its display screen for the current viewing channel (Figs. 11A-11C for illustration for channels 21, 22 & 23), and future program times including its program start time and program terminate time as well as other program/channel information with its display screen for the current viewing channel (as illustrated in Figs. 12B-12C & Figs. 13A-13C). Therefore, it would have been obvious to modify Young's remaining time program progressing bar with Ellis' teaching technique of displaying the next program information by a default or by the user defined as disclosed when a remaining (existing) program time reaches a preset time, i.e., about 5 minutes left, in order to obtain an enhanced technique in displaying a program progress time on a signal receiver including the step of "displaying next program information when a remaining program time reaches a preset time"; it is convenience for the viewer to preview the next program information for the upcoming program as desired.

(Claim 2 was canceled).

As for claims 3 and 4, the steps of "wherein the time information is a program terminating time of the currently viewed program" and "wherein the time information further comprises a current time with respect to the currently viewed program" are taught by Young as Young discloses that the running time, which means the starting time and the terminating time, is included in the overlay 52 (Fig. 10/ item 72 and col. 8/lines 60) and the current time shown as at "11:00 AM" with respect to currently viewed program on display 66 (Fig. 10).

Concerning claims 5 and 6, Young also discloses the step of "wherein the time information includes the program progress time determined by subtracting the beginning time from the current time" and "wherein the time information further comprises the remaining program time determined by subtracting the current time from the program terminating time" as

Young shows a progressing bar for indicating the elapsed time of the currently playing program from the start until the end (Fig. 6/item 72).

Regarding claim 7, in view of claim 1 above, Young discloses a method of displaying a program progress time on a signal receiver, i.e., on a graphical interface screen (Fig. 10/item 72) which receives and processes program guide information containing a program schedule (col. 1/lines 20-30), comprising the steps of: storing the program guide information, i.e., to a schedule memory (Fig. 22A/item 232), and displaying the time information about the currently viewed program when the user issues the display command set in step (b), i.e., user uses a Select command for displaying the information (col. 8/line 66-col. 9/line 10).

Young does not disclose the step of "d) displaying next program information when a remaining program time reaches a preset time" as claimed; however, the technique of reserving a preset time or a time interval whenever the user watches an existing program reaching the preset time, e.g., a five minutes ahead of a program or in other words, about five minutes left for the remaining viewing program, for displaying the next program information is taught by Ellis as Ellis shows that a predetermined set time, a reminder is popped up and showing that a next program is about to start (Ellis, Figs. 9A & 9B, and col. 13/line 60 to col. 14/line 26); and furthermore, Ellis discloses a display for a current viewing program with its present (actual) time including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel (Figs. 11A-11C for illustration for channels 21, 22 & 23) and future program times including its program start time and program terminate time as other program/channel information with its display screen for the current viewing channel (as illustrated in Figs. 12B-12C & Figs. 13A-13C). Therefore, it would have been obvious to modify Young's remaining time program progressing bar with Ellis' teaching technique of displaying the next program information by a default or by the user defined as disclosed when a remaining (existing) program time reaches a preset time, i.e., about

5 minutes left, in order to obtain an enhanced technique in displaying a program progress time on a signal receiver including the step of “displaying next program information when a remaining program time reaches a preset time” for the viewer to preview the next program information for the upcoming program as desired.

As for claims 10, Young also teaches “wherein the commonly usable command of the signal receiver is a command for a channel up/down” because the program note including the progressing time is in the overlay portion, and when the user sends the command by pressing the channel up/down, the overlay portion will display its content correspond to the up/down channel (see Fig. 11 for setting up the program note; Fig. 21/items 136 for controlling up/down channel and col. 8/lines 46-65 for how to use the program note).

As for claim 11, the step of “wherein the commonly usable command of the signal receiver is a command for a remote controller event” is taught by Young (see 22B/item 212).

Regarding claim 12, in further view of claim 1 above, Young discloses a method of displaying a program progress time on a signal receiver, i.e., on a graphical interface screen (Fig. 10/item 72) which receives and processes program guide information containing a program schedule (col. 1/lines 20-30), comprising the steps of: storing the program guide information, i.e., to a schedule memory (Fig. 22A/item 232), and displaying the time information about the currently viewed program when the user issues the display command set in said step (b), i.e., user uses a Select command for displaying the information (col. 8/line 66-col. 9/line 10). Young further reveals to include the step of “judging that the command for displaying the program progress time is issued by the user so as to display the program progress time at a preset time set by the user prior to a program terminating time of the currently viewed program” as the user can activate or deactivate, i.e., by toggling On or OFF, the program note including the progress time bar (col. 9/line 1) and by setting up the preset time period in the menu for the starting time and the terminating time as desired (Fig. 25 and col. 24/lines 3-13; and see claims 1 and 7 above).

Regarding claims 13-16, these method claims with the combination of claimed steps are rejected for the reasons given in the scope of claims 1, and 3-7 as already disclosed above.

Regarding claims 17 and 29, Young discloses a method of displaying a program progress time of a currently viewed program of a signal receiver, i.e., on a graphical user interface screen (Fig. 10), the method comprising the steps of: receiving program guide information including a program schedule having the currently viewed program (Fig. 10/item 70 for the program guide information); and displaying the program progress time of the currently viewed program simultaneously with the currently viewed program in response to a command from a user to perform a function other than displaying the program progress time upon receipt of the command, the program progress time including a current time, i.e., the user can view the currently displaying program at the time with the progress time (Fig. 10 with the progress time bar indicating the running time of the program at the mark 72, and the display also shows a current time at that point (as shown "11:00 a" in Fig. 10 as the current time of the program). Young further shows the steps of "wherein the command is one of an activating a channel up/down key, determining an occurrence of a remote controller event, and setting of a preset time prior to a program termination of the currently viewed program" (see claims 7, and 10-12 with the teaching of Ellis as discussed above).

(Claims 18-19 were canceled).

Regarding claim 20, the steps of "generating a setup display for the user to designate ones of a plurality of commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command" and "receiving inputs from the user designating the ones of the plurality of the commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command" are taught by Young as Young indicates other functions for the user to command such as What's On TV, What's on Tape, Recordings, Themes and etc. (Figs. 4, 7-8, 11, 13).

As for claims 21 and 30, in view of claim 17 above, Young discloses a method of displaying a program progress time of a currently viewed program of a signal receiver, i.e., on a graphical user interface screen (Fig. 10), the method comprising the steps of: receiving program guide information including a program schedule having the currently viewed program (Fig. 10/item 70 for the program guide information); and displaying the program progress time of the currently viewed program in response to a command from a user to perform a function other than displaying the program progress time upon receipt of the command, i.e., the user set the display notes ON, not the program progress time, but the display is included the status of the program progress time (col. 6/lines 46-65). Young further discloses the step of "displaying next program information of a next program on a same channel as the currently viewed program at the preset time prior to the program termination of the currently viewed program" (Fig. 6/item 52 & Fig. 7).

As for claim 22, the steps of "generating a setup display for the user to designate ones of a plurality of commands to function as the command to perform the function other than displaying the program progress time upon receipt of the command, wherein the plurality of commands further comprises displaying the program progress time at a preset time prior to a program termination of the currently viewed program, and for the user to designate another command to display next program information on a same channel as the currently viewed program at the preset time; receiving inputs from the user designating whether the ones of the plurality of the commands are to function as the command to perform the function other than displaying the program progress time upon receipt of the command; and displaying the next program information at the preset time if the first and the another commands are set by the user positively" is suggested by Young as Young allows users to set up the start time and end time of the program(s) and the displaying of the program notes including the program progress time

(Fig. 25, col. 8/lines 46-65 and col. 23/line 60 - col.24/line 13; and Ellis, see claims 1 and 7 above).

As for claims 23 and 24, Young teaches "wherein the program progress time further includes a program beginning time and a program termination time of the currently viewed program" as Young reveals to include the running time of a program including the starting time and the finishing time as shown on the status bar (Fig. 10/item 72, and col. 8/lines 59-60); and "wherein the program progress time further includes a channel number, a name of a broadcast station and a title of the currently viewed program", i.e., Cosby Show (Title) is currently broadcasting on channel 2 (channel number) and by KNTV-FOX (name of a broadcast station) (Fig. 10).

Regarding claim 28, Young teaches a device for displaying a program progress time, comprising: a receiving unit to receive a TV program and a TV program guide containing a program schedule which includes information on the TV program (Figs. 22A & 22B); a user interface to enable entry of a command from a user requesting display of the program progress time (Fig. 22B/item 212); an audio output unit to generate an audio signal of the TV program , i.e., TV program is played at the TV monitor using cable decoder and tuner (Fig. 22A); a processor to produce On-Screen-Graphic data for displaying the program progress time in response to the command from the user and based upon the program schedule (col. 8/lines 45-65 and Fig. 10/item 72); a video output unit to mix video data of the TV program and On-Screen-Graphic data of the TV program, to output a resulting signal; and a display to display the resulting signal (Fig. 22A/at items 224 7 226 to provide outputs to item 210).

8. Claims 8-9 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (U.S. Patent No. 5,727,060) in view of Ellis et al (US Patent 5,986,650) and Jennings, Jr. et al (U.S. Patent No. 5,542,088).

Regarding claims 8-9 and 25-27, Young discloses a percentage calibrated time bar for indicating the percentage of the progressive program (as in Fig. 10/item 72 and col. 10/lines 27-35), but Young and Ellis do not clearly include a percentage number as “wherein the time information further comprises a percentage of the program progress time as compared with a total program broadcasting time calculated by subtracting the beginning time from the program terminating time”; “wherein the time information further comprises a percentage of the remaining program time as compared with the total program broadcasting time”; “wherein said displaying step comprises the step of displaying the program beginning time at a start of a display bar, the program termination time at end of the display bar, and the current time at a position of the display bar corresponding to a percentage of time elapsed versus a total time of the currently viewed program; wherein said displaying step further comprises the step of displaying a first percentage number of the time elapsed and a second percentage number of a time remaining versus the total time of the currently viewed program” and “wherein the command is to display the program progress time automatically at a preset time prior to a program termination of the currently viewed program”; however, the technique of displaying a progressive time bar together with the percentage numbers of indicating how much percentage of the program is completed and the setting of a function to perform at a preset time is known in the art. In fact, Jennings et al (or “Jennings” hereinafter) disclose a same technique of displaying a status bar with its percentage numbers for indicating how many percentage of the program is completed (Jennings, Fig. 2 and col. 6/lines 20-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Young’s suggested percentage calibrated time bar with Jennings’ percentage numbers next to that progressive time

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bar in order to clearly indicate how many percent of the program is being completed. The motivation for doing this is to offer a clear and precise visual notification to users about the currently viewing program being broadcasted as well as the remaining time of that program in terms of percentage numbers instead of an estimation as taught by Young's progressive calibrated time bar.

***Conclusion***

**9. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday- Friday from 9:00 AM to 6:00 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



ANDREW FAILE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Krista Bui  
Art Unit 2611  
June 26, 2003